

Amendments to the Drawings:

The attached sheet of drawings includes changes to Figures 1, 3a and 4. These sheets, which include Figures 1, 3a and 4, replace the original sheet including Figures 1, 3a and 4.

In Figure 1, reference number 25 has been added.

In Figure 3a, reference numbers 27, 29 and 44 have been added.

In Figure 4, reference numbers 31 and 33 have been added.

Attachment: Replacement Sheets

REMARKS/ARGUMENTS

In response to the Office Action, claims 1, 8, 10, 11, 26, 31 and 32 have been carefully amended, with claim 1 remaining generic. Also the errors noted in the disclosure by the Examiner have been corrected.

In the Office Action, the Examiner objected to claims 9-13 and 31 as not encompassing the elected embodiment. With respect to claim 9, the Examiner focused on an inadvertent error in the original claim, which error was noted at the time of the election and corrected by appropriate amendment at that time. With respect to claim 12, the Examiner points to a description of the actuator of Figure 1. However, that description is a general description applicable to all actuators of all embodiments, and distinguishes over other types of actuators, typically longer stroke actuators that do not actuate to a zero magnetic gap. In that regard, note the sentence starting on line 9 of page 17, talking about the embodiment of Figure 4. The "left end of the spool resting against the face of the left pole piece" is clearly reciting a zero magnetic gap as described with respect to Figure 1. Similarly, exciting the opposite coil will pull the spool against the face of the right pole piece, again a zero magnetic gap condition. With respect to claims 31 and 32, the Examiner is correct, and these claims have been appropriately amended to correct the inadvertent error. Accordingly examination of claims 9-13 and 31 and 32 is respectfully requested.

Also the specification and drawings have been amended to specifically identify the first and second magnetic members and to better highlight the operation, particularly of the embodiment of Figure 4.

Finally claims 1, 8, 26 and 27 were rejected under 35 U.S.C. 102(b) on Kolchinsky. Claims 1 and 26 have been amended to better distinguish over the prior art.. Claim 1 now includes a second spring, and the further limitation that the second spring forces the first magnetic member to an extreme position when not magnetically attracted to the first position. In Kolchinsky, each spring is active only over one half of the travel of the moveable member, providing a stable center position for the moveable member. In the present invention however, the stable position is at one extreme position of the first magnetic member, which in a valve system, sets a predetermined state when power is off, frequently an essential valve characteristic. In that regard, the springs in Kolchinsky are for a different purpose than the springs in the present invention. In Kolchinsky, the springs are to provide a stable intermediate moveable member position, while in the present invention, one spring particularly is to increase the speed of operation of the device.

Claim 26 has been amended to specifically set out the operation of the embodiment of Figure 4 with both springs of that embodiment, and clearly distinguishes over the operation of the device of Kolchinsky. Accordingly reconsideration of the rejection of these claims is respectfully requested.

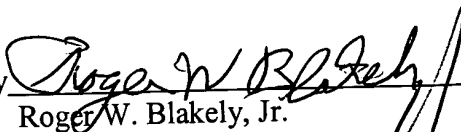
CONCLUSION

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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Dated: 08/12/2005

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Jessica A. Clark
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